

ABSTRACT

According to the invention, in a method for fabricating a semiconductor device and an apparatus for inspecting a semiconductor, as shown in the flow chart in Fig. 2, in a laser processing step 13, laser processing is performed at different laser powers at different positions of a monitor substrate, one extracted from substrates having undergone an SPC step 12, to form polycrystalline silicon film over the entire area of the substrate. Thereafter, in an optimum power inspection/extraction step 14, the polycrystalline silicon film formed with varying film quality on the monitor substrate is inspected on inspection equipment to determine the optimum laser power. Then, in a laser processing step 13, the surface of the subsequent substrates having undergone the SPC step 12 is irradiated with laser at the optimum laser power. Thus, high-quality polycrystalline silicon film is formed over the entire area of the substrate.